#### PRA Standards

The View from Below (The Licensee Perspective)

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# PRA Standards

- Internal Events (ASME, RA-S–2002)
- External Events (ANS 58.21)
- Fire
- Low Power and Shutdown (ANS 58.22)



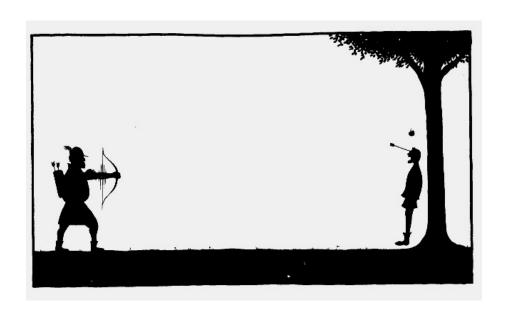
## **PVNGS** Objective

- Maintain a PRA that is acceptable:
  - For required applications
    - Maintenance Rule
    - ROP MSPI
    - Significance Determinations
  - For Optional Applications
    - AOT extensions
    - Risk Informed ISI
    - Valve Programs (MOVs, AOVs)



## What's Acceptable

If I know what the target is, I can hit it! (With enough practice.)



How do I Define the Target?



## To Hit The Target





Quality – Phase II Application

Specific Requirements



- •Internal Events
- •Fire
- •External Events
- Low Power and Shutdown



- •EPRI
- Owners Group
- •NRC



#### The Perfect World

Establish PRA Quality Requirements and all Verify PRA Meets applicable guidance Requirements – Make Any Necessary Changes Submit Application For Staff Approval NO PRA QUALITY Do Application Work **ISSUES!** 



#### The Real World

Use Peer Reviews and Available Industry Methods Documentation to Develop PRA

Establish PRA Quality Requirements and all applicable guidance

Do Application Work **Submit Application** For Staff Approval Uh Oh! Verify PRA Meets Requirements – If PRA Quality Issues then Do Work Over!



#### What I (We) Need

- Standards that validate current accepted methods, faster
  - PVNGS has a Fire PRA, I would like to update it in 2006
  - EPRI just released a new fire method I can use for guidance
  - Fire Standard in 2007?
  - Reg Guide 1.200 endorsement in ?
  - I do not want to waste my 2006 effort on the wrong target.
- Consensus Methods
  - Common Cause Good, one way, one data set, good cooperation
  - Loss of Offsite Power Initiating Event Frequency Bad, a lot of good work, but too many individual efforts (EPRI, WOG, NRC)
- Application Specific Phase II PRA Requirements

